

# Support for Generating Aviation Forecasts at WFOs

Office of Science and Technology  
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# Overview

- WFO Aviation Forecast Products
- WFO Forecast Process for Aviation
- Integrating Software: AvnFPS
- New Ground: Integrating Aviation Guidance
- Plans

# WFO Aviation Forecast Products

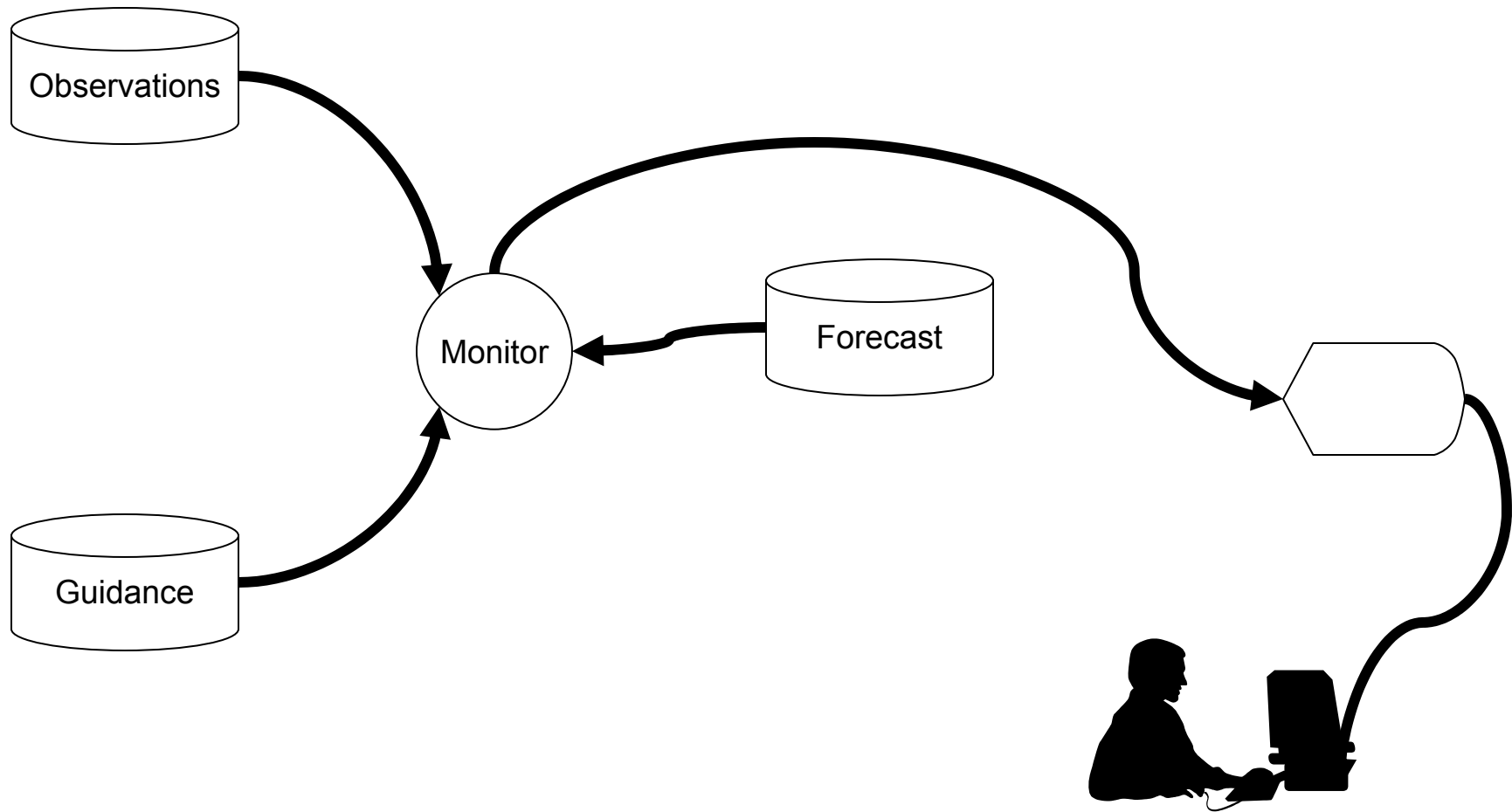
- TAF

- KORF 091120Z 091212 23006KT P6SM SCT050  
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FM2300 16006KT P6SM SCT060  
FM0300 22005KT P6SM SCT080

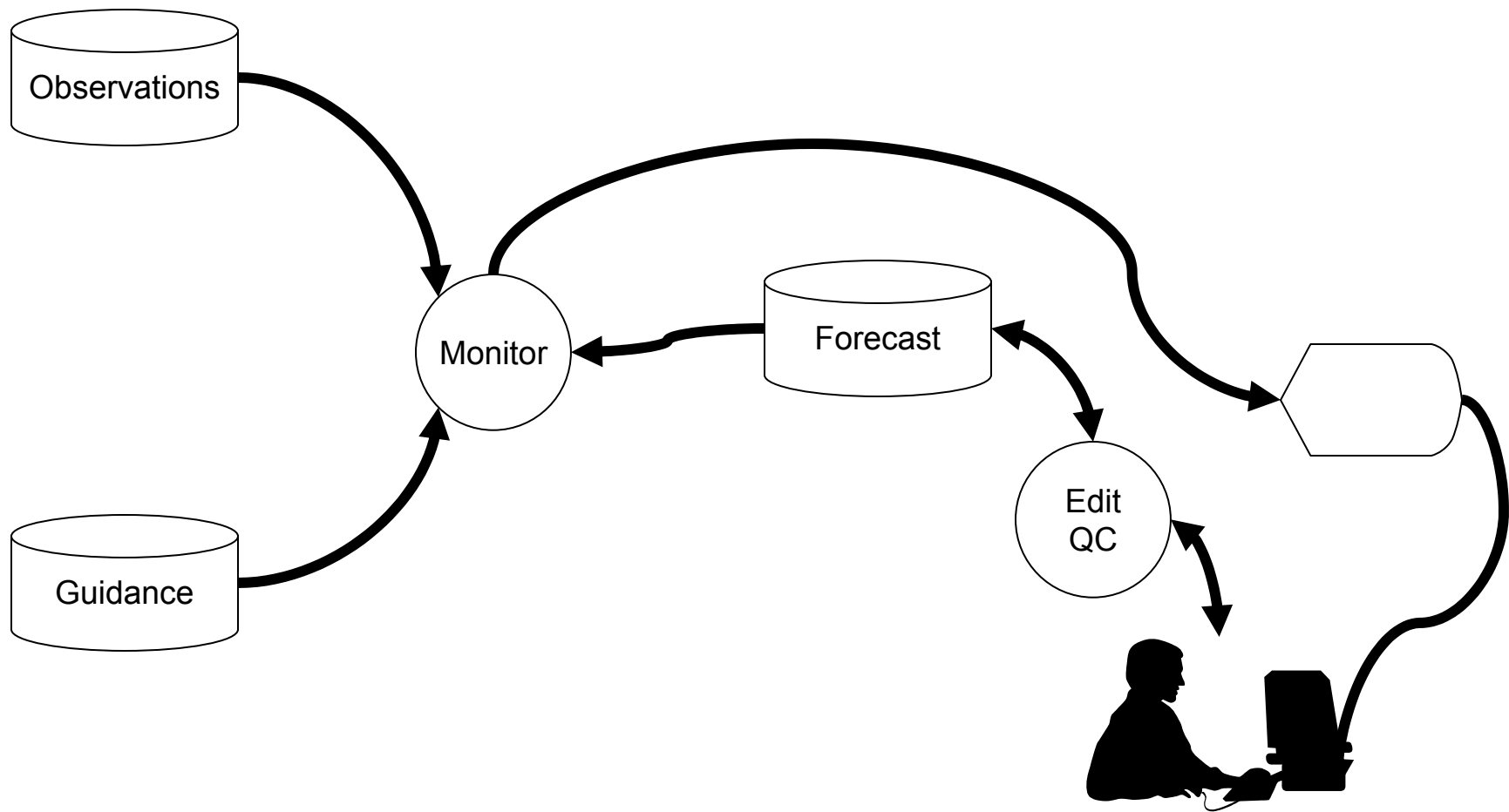
- TWEB

- 033 TWEB 091402 KORF-KSBY-KPHL. ALL  
HGTS AGL EXC TOPS. KORF-KWAL P6SM  
SCT050... 18Z P6SM BKN050... 23Z P6SM  
SCT060. KWAL-KPHL P6SM SCT040  
SCT250...22Z P6SM SCT250.=

# WFO Forecast Process for Aviation



# WFO Forecast Process for Aviation



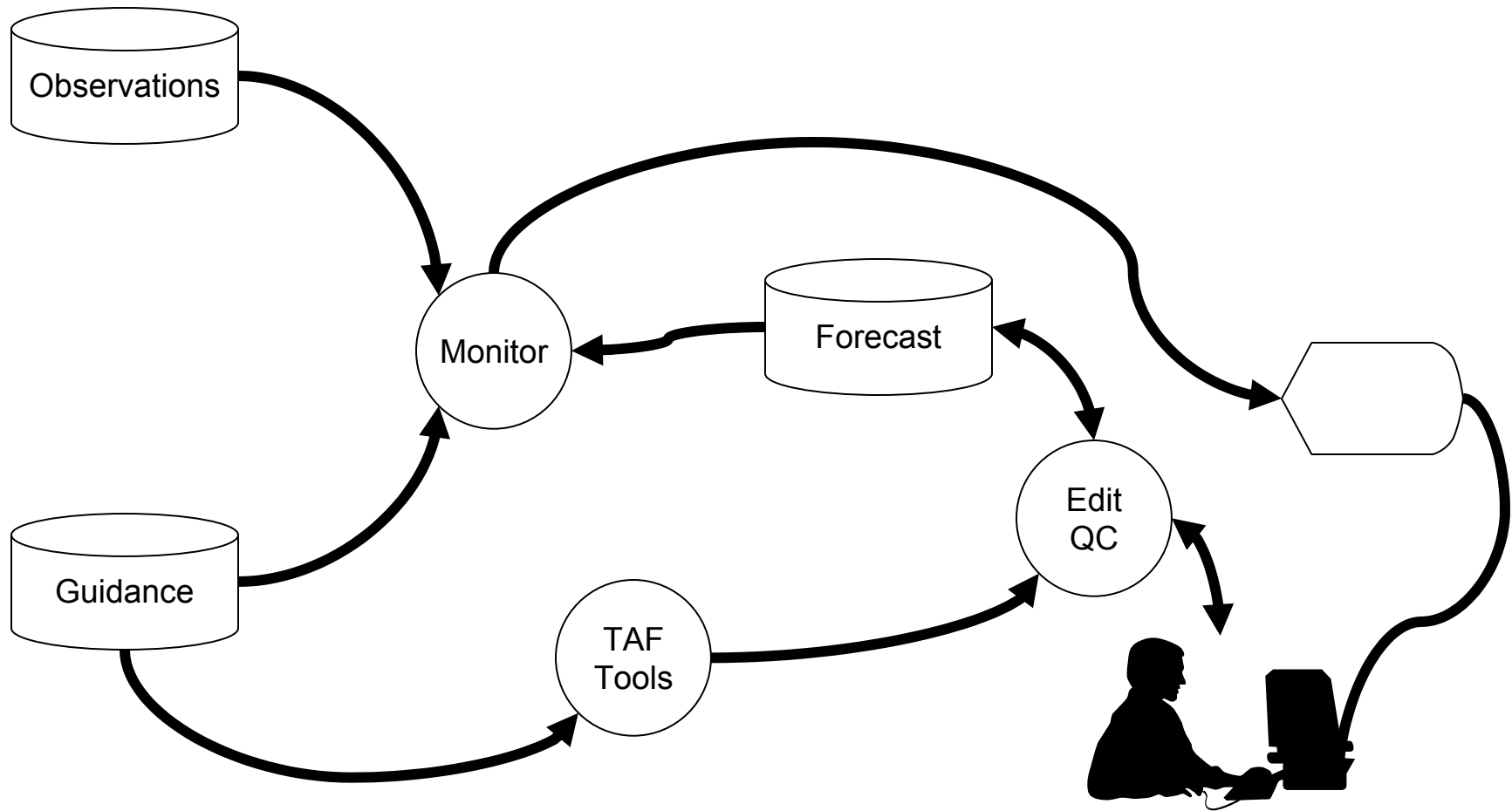
# Integrating Software: AvnFPS

- Monitors forecast
  - Compares to observations
  - Compares to guidance
- Editing interface
- Quality Control
  - Validates syntax
  - Climatological QC

# New Ground: Integrating Aviation Guidance

- Present guidance in TAF format
- Locally-developed tools
- Integration interfaces

# WFO Forecast Process for Aviation





# Present guidance in TAF format

- Existing technology
- Each guidance source has quirks
  - Categories must be transformed to continuous values.
  - Some weather elements may be missing.
  - Few sources have hourly resolution.
- Sources
  - NGM/AVN/Eta MOS
  - Localized Aviation MOS Program (LAMP)
  - Short Range Ensemble Forecast (SREF)
  - Conditional Climatology

# Locally-developed tools

- Software that can manipulate forecast, observations, and guidance.
- Interface permits local development.
  - Considerable interest in sample tools developed in MDL.
  - Little interest so far from local developers.

# Integration interfaces

- Presents forecaster with multiple drafts, derived from various sources.
- Forecaster “assembles” TAF by choosing among options.
- Forecaster performs final edit.

# Plans

- Alpha test AvnFPS 3.0 through fall 2004 at ~10 WFOs.
  - Upgrades to monitoring
  - Guidance presented in TAF format
  - Introduction of Conditional Climatology
- Introduce AvnFPS 3.1 in early 2005.
  - Introduce integration interface
- MOS/LAMP Plans